

ABSTRACT

In an elastic-wave filter having a plurality of cascade-connected longitudinally-coupled-resonator-type elastic-wave filter elements disposed on a piezoelectric substrate, an adverse effect of a parasitic capacitance in cascade-connected wires disposed between the longitudinally-coupled-resonator-type elastic-wave filter elements is reduced so as to improve impedance matching of a cascade-connected portion and to improve the VSWR characteristics of input-output terminals of the elastic-wave filter.

An elastic-wave filter 350 includes two longitudinally-coupled-resonator-type elastic-wave filter elements 306, 312 that are cascade-connected with each other, each longitudinally-coupled-resonator-type elastic-wave filter element 306, 312 including three IDTs 302, 303, 304; 308, 309, 310 arranged on a piezoelectric substrate 300 in a transmitting direction of an elastic wave. In at least one of the longitudinally-coupled-resonator-type elastic-wave filter elements 306, 311, electrode fingers of the IDTs 302, 304; 308, 310 that are cascade-connected are arranged at a pitch that is smaller than a pitch of electrode fingers of the remaining IDT 303; 309.